

OTINA OTIS (TURTON) ON THE COUNTY DOWN COAST.

By A. W. STELFOX.

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LAST year, at the request of Mr. H. Wallis Kew, I was working the coast in the vicinity of Ballymacormick Point, for the False Scorpion, *Obisium maritimum*. During this successful search I became acquainted with a most interesting association of marine and semi-marine animals, the existence of which I was previously unaware.

This includes, besides the *Obisium*, two beetles of the genera *Aëpus* and *Micralymna*; the Collembolan *Anurida maritima*; various species of mites; *Lasæa rubra* and other marine mollusks; as well as marine annelids, and finally an abundance of *Ovatella bidentata*, which on one occasion was accompanied by *Otina otis*.

The situation of Ballymacormick Point, which lies about a mile east of Bangor, and just outside and south of Belfast Lough, renders this habitat free from any trace of brackish water. Moreover, heavy seas break over the low rocks during rough weather. I was a little surprised, therefore, to find *Ovatella bidentata* in such abundance and in such a purely marine habitat, having associated it in my mind with more estuarine conditions. The exact habitat for this association of animals is at about 6 to 8 feet below mean high water mark, or just at the base of the zone of the alga *Fucus vesiculosus*, and in the uppermost part of the zone of the cirriped *Balanus balanoides*. All live between the layers of the Ordovician slates, which in this locality are tilted almost vertically; jagged edges, with deep crevices between, being everywhere to be seen on the upper surface of the rock. Into these crannies during and after storms are washed broken mollusca, crabs, and many other animals, which have been dashed to pieces on the rocks by the force of the waves. At high tide the air-breathing members of the association are forced to remain in the worm burrows and cavities, which everywhere traverse the fine muddy matrix which has filtered into the cracks between the slaty layers. In these subterranean passages a considerable quantity of air is perforce imprisoned during high tide, thus preventing the seawater penetrating the burrows and drowning the air-breathers. At low water they are free to come out into the open air and feed on the animal and vegetable material washed into the crevices by the last tide.

It was upon my third visit to the locality that I made the acquaintance of *Otina otis*, a species I had often looked for previously, but in vain. These occurred in a small colony, about a dozen specimens, in one of the crevices; and looked at first like little lumps of brown jelly. A penny coin would have covered the whole group, most of which were very small.

Very few definite records exist for this little-known mollusk, which is probably common and widely distributed along the more rocky parts of our coast, and so far as I am aware it has not been

reported previously from the east coast of Ireland, though long known to live on the island of Arran in Scotland, which lies within sight of Ballymacormick Point on the northern horizon.

The possible absence of this species from the eastern coast of Ireland, might be accounted for by the fact that from Down southward to Wexford there are few localities where a rocky coast occurs, Lambay, Ireland's Eye, Howth, and Bray Head being the chief possible habitats. Along the remaining parts of the east coast, for the most part, blown sand alternates with low cliffs of glacial drift.

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